

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/031488 A1

(51) International Patent Classification⁷: **G05F 3/02**,
H02M 3/28, 3/335

(21) International Application Number:
PCT/NL2004/000664

(22) International Filing Date:
24 September 2004 (24.09.2004)

(25) Filing Language: Dutch

(26) Publication Language: English

(30) Priority Data:
1024408 30 September 2003 (30.09.2003) NL

(71) Applicant (for all designated States except US): **TECH-
NISCHE UNIVERSITEIT EINDHOVEN** [NL/NL];
Den Dolech 2, NL-5612 AZ Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **YAN, Keping**;
Reinoutlaan 276, NL-5665 AG Geldrop (NL).

(74) Agents: **VALKONET, Rutger et al.**; Algemeen Oc-
trooi-en Merkenbureau, P.O. Box 645, NL-5600 AP
Eindhoven (NL).

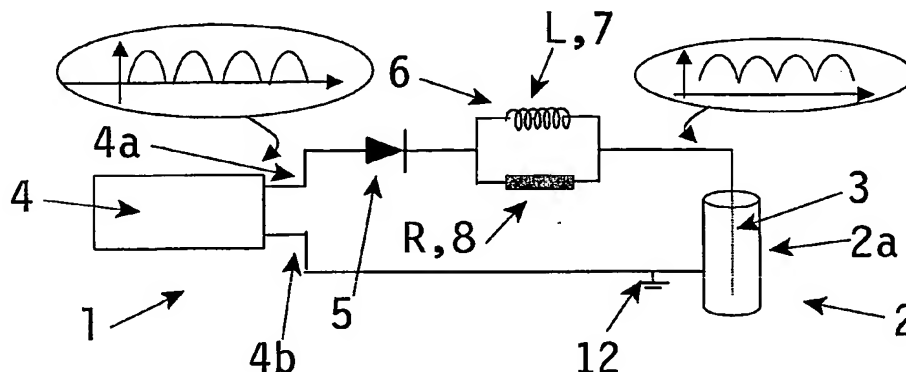
(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: APPARATUS FOR GENERATING CORONA DISCHARGES



(57) Abstract: The invention relates to an apparatus for generating corona discharges, comprising a corona discharge space (2); a discharge electrode disposed in the corona discharge space; as well as a high voltage source (3, 4), an output of which is connected to the discharge electrode. The object of the present invention is to provide an apparatus for generating corona discharges as referred to in the introduction, which on the one hand is of less complex construction, but which is furthermore functionally built up of components that make it possible to use the apparatus with high pulsed power levels as well, and the apparatus is to that end characterized in that at least one element having diode functionality (5) is connected between the high voltage source and the discharge electrode, which element delivers a DC high voltage component comprising a superposed AC high voltage component on the discharge electrode.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.